## Message

From: Welch, August [WelchA@cdmsmith.com]

**Sent**: 7/6/2016 1:53:41 PM

To: Cirian, Mike [Cirian.Mike@epa.gov]; Hoogerheide, Roger [Hoogerheide.Roger@epa.gov]

CC: Coan, Sean [CoanSM@cdmsmith.com]; Repine, Damon [RepineDL@cdmsmith.com]; Formanek, Erin

[formanekek@cdmsmith.com]

**Subject**: FW: Field Modification No. 4

Attachments: SAP-Record of Modification No 4.docx; Request for Field Modification for ISM Sampling

Hi Mike and Roger,

Sorry I have been away from the office recently. We should re-visit this issue with the field mod for the ISM sampling. What CDM Smith was requesting in items 4 through 6 below, was to get Roux to commit to some idea of how the new data from the re-sampling of selected grids would be compared to the originally collected data. In the draft field mod #4 that was submitted by Roux, they talk briefly of low bias but we actually don't know if the original results are low biased or high biased. It depends on the portion of the original sample that was submitted to the lab. We need to try and get them to commit to how they will compare the results and make a determination on the usability of the original data for the grids which were not re-sampled. We should also request that they attach Test America's SOP for ISM sample prep as stated in Item 2 below.

- 1-Description of the modification, why it is needed, and steps taken to rectify the situation (e.g., a new SOP was drafted for review by EPA).
- 2- Attach the Test America SOP for ISM sample preparation.
- 3- Provide a rational for the selection of the three DUs (i.e., 20 percent resampling) selected for re-sampling.
- 4- Provide an explanation for interpretation of potential bias for locations that will not be re-sampled (i.e., bias could be either high or low depending on the portion of the original sample that was sent to the laboratory).
- 5-Provide a description of the potential implications of the bias:

a-Original results for DUs that are not re-sampled may not be adequate for risk evaluation due to low bias if results are near (this should be clearly defined and justified) the human health or ecological threshold. b-Original results for DUs that exceed human health or ecological thresholds and are not resampled may result in unnecessary remedial actions due to high bias of the original result.

6-Provide a description of how data from DUs that are re-sampled will be compared to the original samples (e.g. samples will be compared using a RPD calculation with X% acceptance, all three original samples will be statistically compared to all new samples which each group representing a population, etc.) to determine if the difference between the original samples and new samples is acceptable, therefore demonstrating that the other DUs do not need to be resampled.

Thanks,

August

From: Michael Ritorto [mailto:mritorto@rouxinc.com]

**Sent:** Tuesday, July 05, 2016 9:45 AM

**To:** Andrew Baris <abaris@rouxinc.com>; Cirian, Mike (Cirian.Mike@epa.gov) <Cirian.Mike@epa.gov>; Hoogerheide, Roger <Hoogerheide.Roger@epa.gov>

Cc: John.Stroiazzo@glencore-ca.com; Steve Wright - CFAC <swright@cfaluminum.com>; Repine, Damon

<RepineDL@cdmsmith.com>; Welch, August <WelchA@cdmsmith.com>

Subject: Field Modification No. 4

Mike:

Attached is the field modification form documenting the revised ISM approach as discussed.

If you concur, please return a copy with your e-signature. Please let us know if you have any questions.

Regards,

## Michael Ritorto

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